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PTO/SB/21 (02-04)

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TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	10/669,959	
	Filing Date	September 23, 2003	
	First Named Inventor	Haiyou Wang	
	Art Unit	Unknown	
	Examiner Name	Not Assigned	
Total Number of Pages in This Submission	155	Attorney Docket Number	17462-5

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Firm or Individual name	Henry E. Naylor Kean, Miller, Hawthorne, D'Armond, McCowan & Jarman, L.L.P.
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IN THE UNITED STATES OF AMERICA
PATENT AND TRADEMARK OFFICE

APPLICANT(S): HAIYOU WANG
R. TERRY K. BAKER

SERIAL NO.: 10/669,959

TITLE: CATALYST FOR THE GENERATION OF CO-FREE
HYDROGEN FROM METHANE

DOCKET NO.: 17462-5

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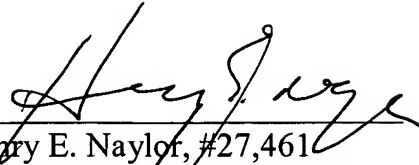
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet	1	of	1
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Complete if Known

Application Number	10/669,959
Filing Date	September 23, 2003
First Named Inventor	HAIYOU WANG
Group Art Unit	Unknown
Examiner Name	Unknown
Attorney Docket Number	17462-5

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Complete if Known	
		Application Number	10/669,959
		Filing Date	September 23, 2003
		First Named Inventor	Haiyou Wang
		Art Unit	Unknown
		Examiner Name	Unknown
Sheet 1	of 2	Attorney Docket Number	17462-5

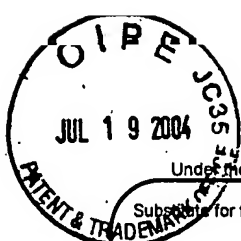
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	1	P. Chen, H.-B., Zhang, G.-D. Lin, Q. Hong and K.R. Tsai "Growth of Carbon Nanotubes by Catalytic Decomposition of CH ₄ or CO on A Ni-MgO Catalyst", Carbon Vol. 35, No. 10-11, pp. 1495-1501, Great Britain, 1997.	
	2	Sakae Takenaka, Hitoshi Ogihara, Ichiro Yamanaka, Kiyoshi Otsuka, "Decomposition of methane over supported-Ni catalysts: effects of the supports on the catalytic lifetime", Applied Catalysis A: General 217 (2001) pp. 101-110.	
	3	M.A. Ermakova, D. Yu. Ermakov, G.G. Kuvshinov, and L.M. Plyasova, "New Nickel Catalysts for the Formation of Filamentous Carbon in the reaction of Methane Decomposition", Journal of Catalysis 187, pp. 77-84 (1999).	
	4	M.A. Ermakova, D.Yu. Ermakov, G.G. Kuvshinov, "Effective catalysts for direct cracking of methane to produce hydrogen and filamentous carbon", Applied Catalysis A: General 201 (200) pp. 61-70.	
	5	B. Monnerat, L. Kiwi-Minsker, A. Renken, "Hydrogen production by catalytic cracking of methane over nickel gauze under periodic reactor operation", Chemical Engineering Science 56 (2201) pp. 633-639.	
	6	Nazim Muradov, "Hydrogen via methane decomposition: an application for decarbonization of fossil fuels", International Journal of Hydrogen Energy 26 (2001) pp. 1165-1175.	
	7	M.A. Ermakova, D. Yu. Ermakov, "Ni/SiO ₂ and Fe/SiO ₂ catalysts for production of hydrogen and filamentous carbon via methane decomposition", Catalysis Today 77 (2002) pp. 225-235.	
	8	Bjorn Gaudernack and Steinar Lynum, "Hydrogen from Natural Gas without Release of CO ₂ to the Atmosphere", Int. J. Hydrogen Energy, Vol. 23, No. 12, pp. 1087-1093, 1998.	
	9	T.V. Choudhary, C. Sivadinarayana, C.C. Chusuei, A. Klinghoffer, and D. W. Goodman, "Hydrogen Production via Catalytic Decomposition of Methane", Journal of Catalysis 199, pp. 9-18 (2001).	
	10	M. G. Poirier and C. Sapundzhiev, "Catalytic Decomposition of Natural Gas to Hydrogen for Fuel Cell Applications", Int. J. Hydrogen Energy, Vol. 22, No. 4, pp. 429-433, 1997.	

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STATEMENT BY APPLICANT**

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Application Number	10/669,959
Filing Date	September 23, 2003
First Named Inventor	Haiyou Wang
Art Unit	Unknown
Examiner Name	Unknown
Attorney Docket Number	17462-5

Sheet	2	of	2
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NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	11	Rita Aiello, Jeffrey E. Fiscus, Hans-Conrad zur Loye, Michael D. Amiridis, "Hydrogen production via the direct cracking of methane over Ni/SiO ₂ : catalyst deactivation and regeneration", Applied Catalysis A: General 192 (2000) pp. 227-234	
	12	Lingyu Piao, Yongdan Li, Jiuling Chen, Liu Chang, Jerry Y.S. Lin, "Methane decomposition to carbon nanotubes and hydrogen on an alumina supported nickel aerogel catalyst", Catalysis Today 74 (2002) pp. 145-155.	
	13	T. Ishihara, A. Kawahara, A. Fukunaga, H. Nishiguchi, H. Shinkai, M. Miyaki, and Y. Takita, "CH ₄ Decomposition with a Pd-Ag Hydrogen-Permeating Membrane Reactor for Hydrogen Production at Decreased Temperature", Ind. Eng. Chem. Res. 2002, 41, pp. 3365-3369.	
	14	V. R. Choudhary, S. Banerjee, and A. M. Rajput, "Continuous Production of H ₂ at Low Temperature from Methane Decomposition over Ni-Containing Catalyst Followed by Gasification by Steam of the Carbon on the Catalyst in Two Parallel Reactors Operated in Cyclic Manner, Journal of Catalysts 198, 136-141	
	15	Naresh Shah, Devadas Panjala, and Gerald P. Huffman, "Hydrogen Production by Catalytic Decomposition of Methane", Energy & Fuels 2001, 15, pp. 1528-1534.	
	16	Zongquan Li, Jiuling Chen, Xixiang Zhang, Yongdan Li, Kwok Kwong Fung, "Catalytic synthesized carbon nanostructures from methane using nanocrystalline Ni", Carbon 40 (2002), pp. 409-415.	
	17	Tiejun Zhang, Michael D. Amiridis, "Hydrogen production via the direct cracking of methane over silica-supported nickel catalysts", Applied Catalysis A: General (1998) pp. 161-172.	
	18	Yongdan Li, Jiuling Chen, Yongning Qin, and Liu Chang, "Simultaneous Production of Hydrogen and Nanocarbon from Decomposition of Methane on a Nickel-Based Catalyst", Energy & Fuels 2000, 14, pp. 1188-1194.	

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